Chapter 11

Infrastructure

UTILITIES

The location and capacity of municipal water and sanitary sewer systems help to determine the form of the City's growth, and the control of stormwater runoff helps to protect the environmental qualities which help to make the Williamsburg region so unique. These facilities will help to guide Williamsburg in its final steps toward full build-out, which is projected for approximately 2030.

Water

<u>Existing System.</u> The public water system consists of raw water sources, a water treatment plant and a water transmission, distribution and storage system.

Raw Water Sources. The primary raw water source for the City is the Waller Mill Reservoir located northwest of the City in York County. With a surface area of 308 acres, the Waller Mill Reservoir has a capacity of 1.5 billion gallons. The reservoir has an approved safe yield of 3.0 mgd (million gallons per day). In addition to the Waller Mill Reservoir, the City has a well adjacent to the reservoir with a yield of 0.5 mgd, for a total of 3.5 mgd.



To supplement these water sources, the City has an interim contract with the City of Newport News, whose raw water lines pass through Williamsburg. The contract allows the City to purchase up to 2.0 mgd until a long term supply is available from a share of water from the King William Reservoir, which is projected to flow in 2018. In the past five years, the City has purchased water from Newport News under this arrangement on a few occasions for extended periods.

Treatment. The raw water from both the Williamsburg and Newport News systems is purified at the City's water treatment plant adjacent to the Waller Mill Reservoir. A major renovation was



completed in 1998. The water treatment plant is a "conventional" plant which utilizes chemical addition, flash mixing, flocculation, sedimentation, filtration and disinfection to treat the water. The plant currently treats between 2.0 and 3.0 mgd in the winter months and between 3.5 and 5 mgd in the summer months, and is certified to treat up to 7.0 mgd. This system transmits the treated water into the City's distribution and storage system.

Transmission and Distribution. The water transmission mains in the City system consist of 12-inch, 18-inch and 20-inch lines that carry water from the treatment plant to the distribution system in the City. The major distribution mains are 6-inch, 8-inch and 12-inch lines. A few lines in the older sections of the City are 1-1/2-inch and 2-inch steel lines, and the City is replacing these lines on an as-needed basis.

The water distribution system serves almost all of the residential and commercial uses in the City. Water is also provided to portions of York County on both a retail and wholesale basis. The Queens Lake area is served by a wholesale master meter, while the City retails residential and commercial water to other portions of the County including Bypass Road, Route 143, Waller Mill Road, Middletown Farms and Camp Peary. The City formerly provided water to portions of James City

County at four different master meter locations. The County has developed a desalinization plant and water is only provided by the City on an emergency basis.

Storage. The City currently has five tanks with a combined storage capacity of 3.5 million gallons. Two ground level tanks are located at the filter plant, one 500,000 gallon tank which is the original clearwell and a 1,000,000 gallon tank which was constructed in 1983 and is at the same overflow elevation as the clearwell. Treated water is stored in these tanks and pumped to the distribution system, which includes three additional storage tanks located in locations around the City. A new 1,000,000 gallon elevated storage tank is proposed for the Quarterpath at Williamsburg development and will be located at the City line near Route 60 east. An additional storage tank is recommended at the western end of the City in the Richmond Road/Mooretown Road area.

<u>Water Demand.</u> Through analysis of water billing and water treatment records, the City estimates that the average annual water demand for Williamsburg is 3.4 mgd. The major identified users within the City includes Williamsburg's commercial customers (hotels, motels, restaurants and retail establishments), the College of William and Mary and Colonial Williamsburg.

Projected Demand. The Regional Raw Water Study Group (RRWSG), a multi-jurisdictional team formed in 1987 to identify a long term water source for the region, developed daily water demand estimates for the City of Williamsburg and its surrounding localities. This earlier study estimated that the 3.4 mgd currently used by the City will increase to over 5.0 mgd by the year 2040. Since the current yield of the Waller Mill Reservoir (and well) is 3.5 mgd, there is an excess demand for water in the City in the absence of a new raw water supply source. A new demand study is underway which will more exactly determine the City's future water needs. This need is discussed further under Future Water Sources below.

Conservation. The City developed and adopted a Water Conservation Plan in 1993, which includes the following water conservation measures: meter calibration and change-out program, metering of all customer connections, plumbing code enforcement, water rates set to reflect the true cost of water, a flat single rate structure, availability fee charges, and outreach programs for water customers. The City provides water conservation kits to help reduce inside water use, and should also look at measures to reduce outdoor water use, such as regulation of irrigation. Williamsburg is an active member of the Hampton Roads Water Efficiency Team (HRWET), which is made up of representatives of local government, water suppliers and public information offices. Its mission is "to develop and implement a regional approach to communicating water efficient practices by all residents, businesses and industries in Hampton Roads."

<u>Future Water Sources</u>. A regional approach to the management of raw water resources is critical to the future development of the City of Williamsburg and the entire Peninsula Region. The City joined forces with Newport News and other partners in 1987 to form the RRWSG, whose stated mission was to examine the current and future water supply needs of the Lower Virginia Peninsula. After several years of analyzing and discussing various water source alternatives, the King William Reservoir with water pumped from the Mattaponi River was the preferred raw water source for the region. The project's major characteristics include the following:

- Construction of a 75 mgd raw water intake and pumping station at Scotland Landing on the Mattaponi River in King William County.
- Construction of a 1.5 mile, 54-inch diameter raw water transmission pipeline to move water from the pumping station to an outfall on the north (upper) end of the King William Reservoir.
- Construction of the new, 78-foot high King William Dam on Cohoke Creek approximately 1,000 feet south of the Route 626 crossing of Cohoke Creek in King William County. The earthen dam will form a 1,526-acre lake (the King William Reservoir) with a storage volume of 12.22 billion gallons of water.

• A 50-mgd capacity raw water pump station located on the downstream side of the King William Dam will pump water from the King William Reservoir to the existing Diascund Creek Reservoir in New Kent County, passing through a pipeline that will include segments of 42- and 48-inch diameter pipe. The pipeline will cross under the Pamunkey River between the two counties.

The City of Newport News, on behalf of the RRWSG, has obtained all required permits to construct the King William Reservoir from State and Federal regulatory agencies, including the Army Corps of Engineers. The City will be negotiating with Newport News to become a partner in the \$230+ million King William Reservoir, and the new demand study will determine the degree of City participation in the project.

The King William Reservoir project will provide a 20 mgd safe yield supply to the Peninsula. The City's cost will primarily be predicated on what share of that capacity the City needs and commits to. In any case, the cost of drinking water will increase on the Peninsula due to the development of this new water supply. However, this new supply will provide for an adequate source of water for the City for the next 40+ years, which will serve the needs generated by the growth anticipated by the 2006 Comprehensive Plan.

<u>Future Service Improvements.</u> In sizing the City's water mains, an attempt was made to provide mains large enough to provide sufficient fire flow to developed areas. The City retains the right to review main sizes as future development occurs to ensure that they are adequately located and sized to provide Insurance Services Office (ISO) recommended fire flows and also meet the normal demands for the area. In general, water line extensions will be required to serve all future development. Therefore, such extensions will be development-driven and will be extended as warranted by future development patterns.

Based on computer analysis and fire flow tests performed on hydrants throughout the City, several improvements have been made to upgrade the existing distribution system. Future water system infrastructure improvements include extensions to serve proposed developments in the City. A water line extension and storage tank are required for the Quarterpath at Williamsburg development in the Quarterpath Road//Tutter's Neck Pond area. Likewise, water extensions for the Treyburn Drive/High Street Williamsburg development are planned. In addition, water line improvements are anticipated in the Bypass Road/Mooretown Road areas of the City's service area in York County.

Sanitary Sewer

<u>Existing System.</u> The Williamsburg Sanitary Sewer System consists of sewer mains and pumping stations that carry wastewater to a regional treatment plant. This system came into existence when the City's sewerage plant on South England Street was abandoned in April, 1972 after Williamsburg contracted with the Hampton Roads Sanitation District (HRSD) for treatment of sanitary sewage. HRSDC built and now operates a large pumping station on the old plant site which pumps untreated sewage to the HRSD Williamsburg Treatment Plant on Ron Springs Drive in James City County.

This regional treatment plant operates at a capacity of 22.5 mgd. Given the fact that current demand flows are in the neighborhood of 12-13 mgd, the Williamsburg plant is quite capable of handling current and projected sewage treatment demands generated within the City in the foreseeable future. HRSD has plans to replace its existing pump station located at the intersection of Route 60 and 132. This station is housed in an outdated building and suffers from inadequate pumps and an undersized storage facility. A replacement pump station with a new building, new pumps and larger storage basins will be constructed on the site.

While it appears that the HRSD system is capable of handling current and projected sewerage over the planning period, the City must continue to upgrade the existing collection system and plan for the optimal expansion of privately-developed sewage systems. With the continued infill of developed commercial and residential areas, the City must also be careful not to overload existing lines, which are quite old in many instances. In several areas throughout the City, infiltration/inflow (I/I) is a significant problem in the

sewer system, as stormwater filters through cracks and other openings into the sanitary sewerage system during heavy storms. This "I/I" problem will only increase in the absence of rehabilitation in the coming years as the City infrastructure continues to age and demand continues to increase.

<u>Future Service Improvements.</u> The City will need to work with the development community as the utility infrastructure is expanded to handle new development. City standards are applied to this new infrastructure to insure compatibility, and these standards will need to be upgraded periodically to take advantage of desirable new technology.

Maintaining the integrity of existing aging infrastructure is a primary mission of the City. The City intends to join other jurisdictions in the Hampton Roads Planning District in a regional effort to address sewer system overflows and infiltration/inflow related issues. A long term plan for sewer system rehabilitation and replacement will be developed using a priority system based on age and cost-benefit analysis.

Public Utility Extension Policy

Sewer and water extensions in the City have historically been driven by development. Today, few developed areas within the City remain without access to public water and sewer facilities. In fact, the City's Department of Public Works and Utilities estimates that over 95% of the City's developed land has access to City water and sewer lines. The City has been active in extending public sewer to areas which were on private septic systems. Currently, only 38 properties are not on City sewer, a significant reduction from the 64 properties identified in the 1998 Plan.

However, extension of services to a few areas may need to wait until private development results in the extension of water and sewer mains and the construction of sewer pump stations. Although the existing City Code does not require residents to connect to City sewer and/or water systems if they have a functioning septic and/or well system, it is hoped that once the service extensions are in place, residents will be willing to hook-up to the system, thereby decreasing the potential long term community health risks posed by aging well and septic systems.

Stormwater Management

Almost all site development projects affect storm or surface runoff in some way as they typically result in changes to the surface character of the site, which alter runoff patterns in terms of rate, volume and direction. Construction activities can also generate sediment and nutrient loading issues, and impervious pavements increase both the volume of stormwater runoff and the magnitude of peak flood flows. Furthermore, runoff from urban areas is often polluted with nutrients, oils and toxic metals. The contemporary approach is to develop a comprehensive, integrated stormwater management program which addresses the effects of storm runoff on water quality in addition to volume and rate of runoff.

<u>Water Quality Issues.</u> Best Management Practices (BMPs) are a major component in stormwater management practices, and are measures that have been developed to control, store and/or treat stormwater runoff from developed areas for the purpose of reducing flooding or removing pollutants while maintaining or enhancing environmental quality. BMPs have been incorporated throughout the City as a principal measure in the City's stormwater management strategy. Their effectiveness depends on the removal mechanism used, the fraction of the annual runoff that is effectively treated and the nature of the pollutant being removed. With thoughtful site design, regular maintenance and creative landscape architecture, most BMPs can be not only efficient and utilitarian, but also an attractive (or at least unobtrusive) addition to any community.

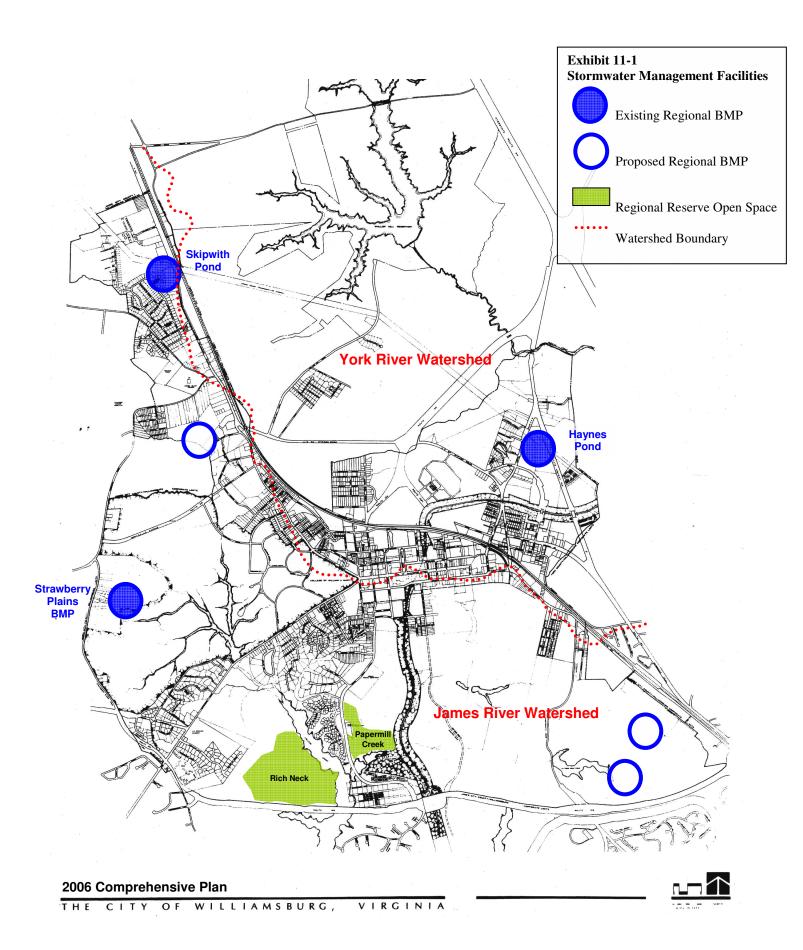
Water Quantity Issues. As land is developed, the area of imperviousness almost always increases. If measures are not taken during the design of stormwater management facilities, this increased rate of flow and volume can cause downstream flooding and erosion and sedimentation problems. The use of properly designed stormwater management facilities can provide a solution to these problems. The City's Erosion and Sedimentation Control Ordinance addresses these issues, and requires all developers to convey runoff to adequate channels, or to prevent an increase of runoff from their properties.

<u>Watershed Delineation.</u> For planning purposes, the City of Williamsburg can be broken into six major watersheds. Four of these watersheds lie within the James River Basin (Chisel Run, College Creek, Paper Mill Creek and Tutter's Neck), while the other two watersheds (Queen's Creek and Waller Mill Pond) contribute to the York River basin. Overall, Williamsburg is located on a ridge with 1,333 acres in the City located in the York River watershed and 4,457 acres located in the James River watershed.

Stormwater Management Plan. The City's Comprehensive Stormwater Management Plan, adopted in 1996 and amended in 1998, defined a comprehensive approach to managing stormwater runoff. This Plan provided a comprehensive and unified framework for stormwater management that addressed water quantity and water quality issues and offered detailed recommendations for the proper implementation of Best Management Practices. The major components of this plan are:

Emphasize regional BMPs. In many cases, regional City-owned BMPs are preferable to small, onsite facilities. Large BMPs serve a larger drainage area and are usually more cost effective to construct and maintain than several smaller on-site BMPs. They also have greater potential to control downstream flooding and other water quantity problems caused by development. To limit the number of small on-site BMPs, the Stormwater Management Plan requires a development to utilize a regional facility if it cannot be served by a BMP facility such as a retention pond that has a drainage area of 10 or more acres or a detention facility that has a drainage area of 24 acres or more. The construction of regional facilities will depend largely on the pace and scale of future development.

Establish Regional Reserve Open Space. An alternative to the structural regional BMP is the establishment of Regional Reserve Open Space. This concept, approved by the Chesapeake Bay Local Assistance Board, allows the City to place restrictive covenants on open space that is purchased for preservation and passive open space. Since this land cannot be developed, the land area can be used to offset impervious land area in proposed developments. This has the dual advantage of encouraging the purchase and preservation of passive open space while reducing the need for small,



on-site stormwater management facilities. Two Regional Reserve Open Space areas have been established: the College Creek Conservation Area and the Papermill Creek Conservation Areas (future site of the Papermill Creek Park).

Maintain a regional BMP credit system. The City has adopted a system, endorsed by the State's Chesapeake Bay Local Assistance Department, that allows the sale of BMP credits to qualifying developers. For instance, instead of building a small on-site facility, the developer could "buy-in" to a regional facility or regional reserve open space if available. The key to this arrangement is that a regional facility or regional reserve open space must exist and must have excess credits available for sale. The advantages of such an arrangement to the developer are that he does not have to reserve land for an on-site facility, nor be committed to long-term maintenance requirements. The advantages to the City are fewer facilities to monitor and inspect, improvement to overall stormwater quality and aesthetic improvements. The City maintains three regional BMPs: Skipwith Pond and Strawberry Plains detention facility in the James River watershed, and Haynes Pond in the York River watershed. Two Regional Reserve Open Space areas have also been established, both located in the James River watershed: the Rich Neck Conservation Area (105 acres) and the Papermill Creek Conservation Area (37 acres - future site of the Papermill Creek Park).

Administer a Stormwater Management Facility Inspection Program. BMPs require regular maintenance to ensure that the facilities operate properly, and the City requires a maintenance agreement from the owners of private BMP structures to ensure that they are properly maintained. The City inspects all private BMP structures that have a maintenance agreement. Maintenance guidelines for BMP facilities are presented in the Williamsburg Stormwater Design Manual that was developed concurrently with the Stormwater Management Plan.

Administer a Stormwater Management Ordinance. The City has adopted a stormwater management ordinance to augment the existing Chesapeake Bay Preservation and Erosion and Sedimentation Control Ordinances. These regulations are designed to help prevent illicit discharges and dumping into storm drains, and grant the City the legal tools to implement the strategies outlined in the Comprehensive Stormwater Management Plan. These tools include the prohibition by law of putting any gasoline, oil, antifreeze or other pollutants into the storm system. It also prohibits anyone from putting anything in the gutter, ditch, storm drain or other drainage way that impedes or interferes with the free flow of stormwater. Chlorinated swimming pool water also cannot be discharged into the City storm drain system. The ordinance also implements the credit system allowing the sale of water quality credits, thereby providing developers a means to share in the cost of regional stormwater management facilities.

Phase II EPA Stormwater Regulations. In 2003, the City obtained a permit for municipal stormwater discharges under the State's VPDES General Permit for Small Municipal Separate Storm Sewer Systems (MS4). This was required by the Federal Clean Water Act for jurisdictions located in an urbanized area as defined by the U.S. Census. Six minimum control measures needed to be satisfied: public education and outreach on stormwater impacts, public involvement and participation, illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management in new development and redevelopment, and pollution prevention and good housekeeping measures for municipal operations. The City's Stormwater Management Ordinance adopted in 1996 and amended in 1998 was a major factor helping the City to meet these requirements. The permit will need to be renewed in 2008.

<u>Chesapeake Bay Preservation.</u> It is also imperative that future development should not encroach on the natural system valleys and other sensitive environmental areas that have been designated for conservation by the Comprehensive Plan. These sensitive environmental areas are regulated by the Chesapeake Bay Preservation Ordinance and the City's site planning regulations. This ordinance, in place since 1989, is designed to protect and improve the water quality of the Chesapeake Bay, its tributaries, buffer areas and

other sensitive environmental lands by minimizing the potential adverse effects of human activity upon these areas. The ordinance prohibits non-water-dependent development within identified resource protection areas. It also establishes performance standards for the development of land in preservation areas which are designed to establish the means to reduce areas of land disturbance, minimize erosion and sedimentation potential, reduce the land application of nutrients and toxins and maximize rainwater infiltration. The standards are also intended to prevent a net increase in non-point source pollution from new development and to achieve a ten percent reduction in non-point source pollution from redevelopment.

Capital Improvement Programming. In addition to these major policy recommendations, the Stormwater Management Plan included 21 specific recommendations targeted for inclusion in the City's Capital Improvement Program (CIP). The project selection criteria used to evaluate the recommended projects were based on the following items: safety, quality and quantity benefits and beautification. As of Spring 2006, 13 of the 21 recommendations have been completed. Four of the remaining eight projects are in the planning stage, and the other four are under consideration for future inclusion. In addition to the 21 original recommendations, seven additional stormwater management improvements have been completed, and four more have been included in the CIP.

Solid Waste Management. In an effort to develop an effective regional disposal system, a comprehensive solid waste management plan for the Peninsula has been prepared. In response to this plan, the Virginia Peninsula Public Service Authority (VPPSA) was formed to handle solid waste and refuse for the entire Peninsula. Garbage is collected door to door in the City by a contracted private firm and is transported by truck to the regional landfill in Hampton. The City's recycling program for residential use, which was one of the first of its kind in the Commonwealth, includes curbside pick-up of glass, aluminum and paper.



The reports from this recycling effort indicate that it has been a successful program for the residents of Williamsburg.

TRANSPORTATION

The transportation plan encompasses a variety of transportation modes: roads, sidewalks, bikeways, mass transit, and rail. An efficient transportation system will use all of these modes, providing a variety of options for residents, visitors and businesses. The character of these transportation facilities needs to be compatible with the land uses proposed in the Future Land Use Plan, and should minimize impacts on Williamsburg's stable residential and commercial areas.

Road Classification

This Plan recognizes four levels of road classifications, which provides a readily understandable organization of road hierarchies for the 2006 Comprehensive Plan. These are based on VDOT's functional classification of City streets.

Interstates and Principal Arterials. The principal arterial is a multi-lane highway, and may have partial or complete control of access and medians separating opposing traffic streams. Interstate 64, Route 199 and Route 60 (Richmond Road/Bypass Road/Page Street/York Street) are Williamsburg's only highways that meet the physical definition and intended function for this roadway classification.

<u>Minor Arterial Streets.</u> The second level in the transportation hierarchy - arterial streets - focuses on systems to route traffic to and from interstates and major arterials. The minor arterial is intended to handle trips between major traffic generators and to accommodate internal traffic movements (collection and distribution) within a defined area. Minor arterial streets also give access to immediately adjacent lands. Jamestown Road, Second Street and Route 132 are examples of minor arterials.

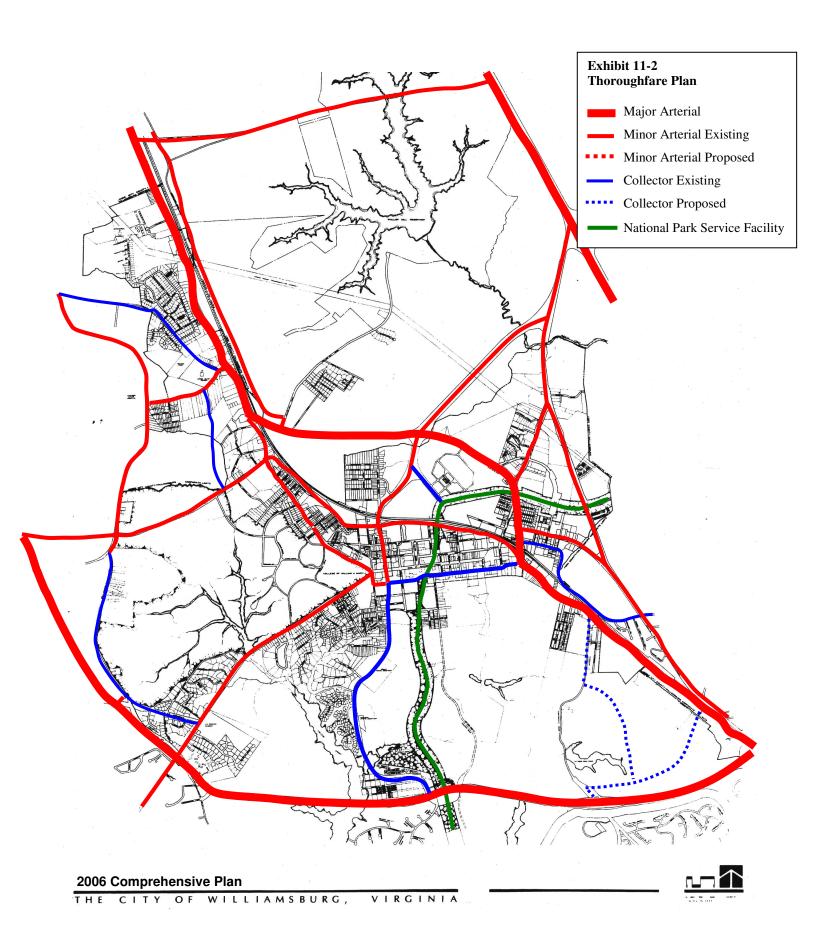
<u>Collector Streets.</u> Collector streets serve to distribute traffic between minor arterial streets and activity centers. While their primary function is to collect relatively high volumes of local residential traffic, the local collector can normally sustain the demands of minor retail, office, and tourism generators or other commercial establishments along its alignment. Collector streets are traditionally two-lane undivided sections (often with turning lanes), with the relatively unrestricted spacing and configuration of access entrances. Examples of collectors are Longhill Road and John Tyler Lane.

<u>Local Streets.</u> The fourth category of street is the local street. These streets can be further categorized into sub-collectors, lanes, and places (or cul-de-sacs). Their major purpose is to conduct traffic to and from other higher category streets.

Existing Streets

The Williamsburg transportation system is connected to the Virginia Highway System primarily via Interstate 64, U.S. Route 60 and State Route 143, which generally parallels old Route 60. Jamestown Road (Route 31) connects Williamsburg to southside Virginia by way of the Jamestown Ferry. The Colonial Parkway serves secondary functions as a connector of regional systems and as a conduit for local circulation, but it serves primarily as a special scenic facility linking the historic areas of Williamsburg, Yorktown and Jamestown.

The configuration of the existing major thoroughfare system for Williamsburg gives the appearance of a typical city system of radial and circumferential streets centered on a central business district. The outer circumferential is State Route 199 which connects to I-64 both northwest and southeast of Williamsburg. U.S. 60 together with Bypass Road and Lafayette Street form an almost complete inner circumferential. The radial streets within the system are Henry Street (Route 132), which forms a north-south connection between I-64, Bypass Road and Route 199; Jamestown Road, which links Route 199 and the Historic



Area; Richmond Road, which links Route 60 and the Historic Area; and Monticello Avenue, which forms an east-west connection between Route 5, Route 199, Ironbound Road and Richmond Road.

Unlike most similarly sized cities, this system is disconnected and often confusing because traffic patterns have been routed around the Historic Area and the College for reasons other than sound traffic conveyance. Although central and attractive as the geographic center of the City, the Historic Area is quite different from the typical central business district and yields unique parking requirements and distinct traffic circulation patterns which are uncommon to any other Virginia community. Because of this fact, a number of major thoroughfare improvements of the past have been undertaken with the purpose, at least partly, of relieving the streets of the Historic Area from traffic. These improvements include Bypass Road, State Routes 132 and 143, Lafayette Street, and most recently Route 199 and the extension of South Henry Street.

Improvements since the 1998 Comprehensive Plan

Major improvements to transportation facilities have been made since the adoption of the 1998 Comprehensive Plan. Route 199, first discussed in the 1968 Comprehensive Plan, was finally completed as a four-lane circumferential highway in 2005, and major improvements were made to the Jamestown Road/Route 199 intersection, including a signalized pedestrian crosswalk. Monticello Avenue was completed from the City limits at Ironbound Road west to its intersection with Route 5. Mooretown Road was extended from its terminus just south of Airport Road to Waller Mill Road, providing a route parallel to Richmond Road from Bypass Road to Route 199. Major sidewalk improvements were made in the Prince George and Boundary Street areas in conjunction with the construction of the Prince George Parking Garage. Both the Richmond Road Improvement Project from Brooks Street to New Hope Road, and Treyburn Drive from Monticello Avenue to Ironbound Road, are under construction and will be completed in FY07. Taken together, these improvements provide more interconnections and options for travel in the Williamsburg area, and thereby improving traffic flow.

Existing Traffic Counts

Annual average daily 24-hour traffic counts (AADT) were conducted for major streets in 1994 (included where comparable) and in 2004 by VDOT, and this is summarized in the table below:

Table 11-1	Annual Average	Daily Traffic 2004
Table 11-1	Allilual Avel age	: Daily Trailic 2004

Street	Location	1994 ADT	2004 AADT
Richmond Road	WCL to Ironbound Road		16,000
Richmond Road	Ironbound Road to Bypass Road	38,042	25,000
Richmond Road	Bypass Road to Monticello Avenue		19,000
Richmond Road	Monticello Avenue to Armistead Avenue		12,000
Bypass Road	Richmond Road to Route 132	28,163	21,000
Bypass Road	Route 132 to Parkway Drive	16,840	12,000
Bypass Road	Parkway Drive to Page Street		10,000
Page Street	Bypass Road to Second Street		13,000
Page Street	Second Street to Lafayette Street		12,000
York Street	Page Street to Quarterpath Road	18,227	11,000
Capitol Landing Road	Bypass Road to Merrimac Trail		6,200
Route 199	Jamestown Road to Brookwood Drive	24,455	31,000
Route 199	Jamestown Road to Route 5	19,799	29,000
Second Street	Page Street to Parkway Drive	16,653	13,000
Second Street	Parkway Drive to ECL	17,559	15,000
Ironbound Road	Longhill Connector to Longhill Road		7,900
Ironbound Road	Longhill Road to Richmond Road	15,169	12,000
Monticello Avenue	Compton Drive to Richmond Road		15,000
Jamestown Road	Route 199 to John Tyler Lane	reet to Lafayette Street et to Quarterpath Road pad to Merrimac Trail n Road to Brookwood Drive n Road to Route 5 et to Parkway Drive Drive to ECL Connector to Longhill Road Road to Richmond Road Drive to Richmond Road Drive to Richmond Road O to John Tyler Lane T Lane to South Boundary Street	
Jamestown Road	John Tyler Lane to South Boundary Street		12,000
Quarterpath Road	York Street to Route 199		570

Recommended Transportation Improvements

The Thoroughfare Plan (Exhibit 11-2) proposes a balance between street capacity, operating efficiency and environmental impact, and improves access to major new developments. The specific proposed improvements are discussed below:

Monticello Avenue/Ironbound Road Intersection. The reconstruction of this intersection will both improve traffic flow and create a gateway feature for traffic traveling into the City from Route 199 and points west. This corridor also functions as a major entrance to the College of William and Mary, and provides an important connection to the Richmond Road commercial corridor, Merchants Square, and the Colonial Williamsburg Historic Area. The present roadway will become three outbound lanes (left turn, through and right turn), and a new inbound road will be constructed to bring traffic into the City. A 70-foot wide landscaped median will be maintained between the eastbound and westbound lanes. The intersection will be completed when VDOT completes the widening of Ironbound Road to a four-lane facility between Monticello Avenue and the Longhill Connector. When completed, Monticello Avenue, Ironbound Road, Treyburn Drive and Richmond Road will provide access to the major commercial areas of High Street Williamsburg, Williamsburg and Monticello Shopping Centers, and the New Town area in James City County.

Quarterpath Road area. The most concentrated road improvements in the City are proposed in conjunction with the major developments along Quarterpath Road – Quarterpath at Williamsburg just north of Route 199, The Village at Quarterpath near York Street, and future development of an adjacent 15-acre economic development area. The design details of these improvements will need to be worked out in conjunction with the development of the site and subdivision plans for the new development. In this area, there will be more than 1,000 houses, approximately 600,000 square feet of commercial floor area, a new hospital and associated medical facilities. The specific improvements needed are described below:

- Improvements to the Route 199/Quarterpath Road intersection. Adequate turning lanes and signalization improvements will be required to serve the adjacent developments, with details to be worked out in conjunction with the development of site and subdivision plans for Quarterpath at Williamsburg. Close coordination with James City County and the Virginia Department of Transportation will be required, particularly since the majority of the intersection is located in VDOT owned rights-of-way. The aesthetic design of this intersection will be important because it will be the gateway into one of the largest developments in the City's history.
- Construction of Battery Boulevard. This is a major east-west connector street paralleling Route 199, and was first proposed in the 1989 Comprehensive Plan. It will connect Quarterpath Road with Route 60 East, and will provide a connection to Redoubt Road (discussed below). This will be the major collector road serving the entire Quarterpath at Williamsburg project, and will also provide access to Doctors Hospital of Williamsburg. The design of this road will also require coordination with James City County and VDOT because the intersection with Route 60 East is located within James City County. It is anticipated that improvements to the Route 199/Route 60 intersection will be needed in conjunction with the new intersection of Battery Boulevard and Route 60 East.
- Construction of Redoubt Road/Improvement of Quarterpath Road. Redoubt Road will be the major collector road leading north from Battery Boulevard, extending through the residential area north of Tutter's Neck Pond to Quarterpath Road, which will be widened and improved as a two-lane collector road from Redoubt #2 to York Street. This will provide a secondary access to the non-residential uses along Battery Boulevard.
- Improvements to the Quarterpath Road/York Street intersection. Additional turning lanes and a traffic signal, when warranted, are anticipated for this intersection, which also serves as an access to Quarterpath Park and Redoubt Park.

The treatment of Quarterpath Road is a major change from past plans for this area. The 1989 and 1998 Comprehensive Plans designated the entire length of Quarterpath Road as a secondary arterial street, to be improved to serve the adjoining development. The 2006 Plan proposes closing the center section of Quarterpath Road to through traffic and instead establishing the north-south connection via a new collector street (Redoubt Road) on the east side of Tutter's Neck Pond, connecting to Quarterpath Road just north of Redoubt #2, and then following the existing Quarterpath Road alignment to York Street. This alignment, coupled with Battery Boulevard and improvements to the Quarterpath Road/Route 199 intersection, will provide adequate traffic capacity for Quarterpath at Williamsburg and the adjoining economic development area to the west of Quarterpath Road. Design details will need to be approved in conjunction with the subdivision and site plan review process, and need to be coordinated both with James City County and VDOT to ensure that adequate levels of service are maintained in this area.

This new alignment will allow the preservation of the historic Quarterpath Road trace alongside Tutters Neck Pond and Redoubt #1, as well as preservation of the sensitive environmental areas around the Pond and Tutters Creek. Most importantly, the historic setting of Quarterpath Road and Redoubt Park will be preserved, greatly enhancing the ability to preserve and interpret these sites (Redoubts #1 and #2) from the 1862 Peninsula Campaign. This setting would largely be destroyed of this section of Quarterpath Road were improved as a two-lane minor arterial street as proposed in the 1989 and 1998 Comprehensive Plans. However, the existing Quarterpath Road right-of-way for this center section should be preserved in the event that unforeseen future needs necessitate further road improvements for this area.

<u>Ironbound Road.</u> The widening of Ironbound Road from two to four lanes is proposed between the Longhill Connector and Richmond Road. Shoulder bike lanes are also proposed for this corridor. This will be an important connection between Richmond Road and the Ironbound Road/Longhill Road corridor that provides connections to Route 199 and Monticello Avenue. This will also provide improved capacity and traffic flow for Richmond Road and the High Street Williamsburg development. Because of funding commitments for the construction of Treyburn Drive, construction of this project is not expected until after 2026.

<u>New Traffic Signals</u>. New traffic signals may be necessary in select locations as the City's growth continues. In general, traffic signals should be added only if warranted by new development and/or significant changes in traffic volumes. Traffic signals should be used only when there are no other reasonable alternatives. Improvements in intersection geometry, traffic calming measures and signage may be able satisfactorily address traffic flow issues in lieu of traffic signals. In instances where the installation of a new traffic signal is justified, pedestrian and bicycles accommodations should be considered.

HRPDC 2026 Regional Transportation Plan

The Hampton Roads 2026 Regional Transportation Plan, prepared by the Hampton Roads Planning District Commission (HRPDC), was adopted by the Metropolitan Planning Organization in December 2003. The Regional Plan includes both long-range and short-range strategies and actions, with projected fiscal requirements, that will lead to the development of an integrated intermodal transportation system facilitating the efficient movement of both people and goods. The purpose of the plan is to guide today's spending for a better transportation system tomorrow, to help citizens and government make better location decisions, and to help citizens and elected officials determine the appropriateness of planned projects, transportation funding and land use policy.

Although the plan focuses primarily on regional transportation issues, it does include several specific recommendations for transportation improvements within the City of Williamsburg. These improvements include:

- Route 199/Jamestown Road intersection improvements (completed in 2005).
- Richmond Road Improvement Project Brooks Street to New Hope Road (to be completed by December 2006)
- Treyburn Drive (to be completed in June, 2007)

Because of anticipated funding shortfalls, the following candidate project was not able to be included in the 2026 Plan, although it is included in the City's 2006 Comprehensive Plan:

• The widening of Ironbound Road to four lanes from Richmond Road to the Longhill Connector.

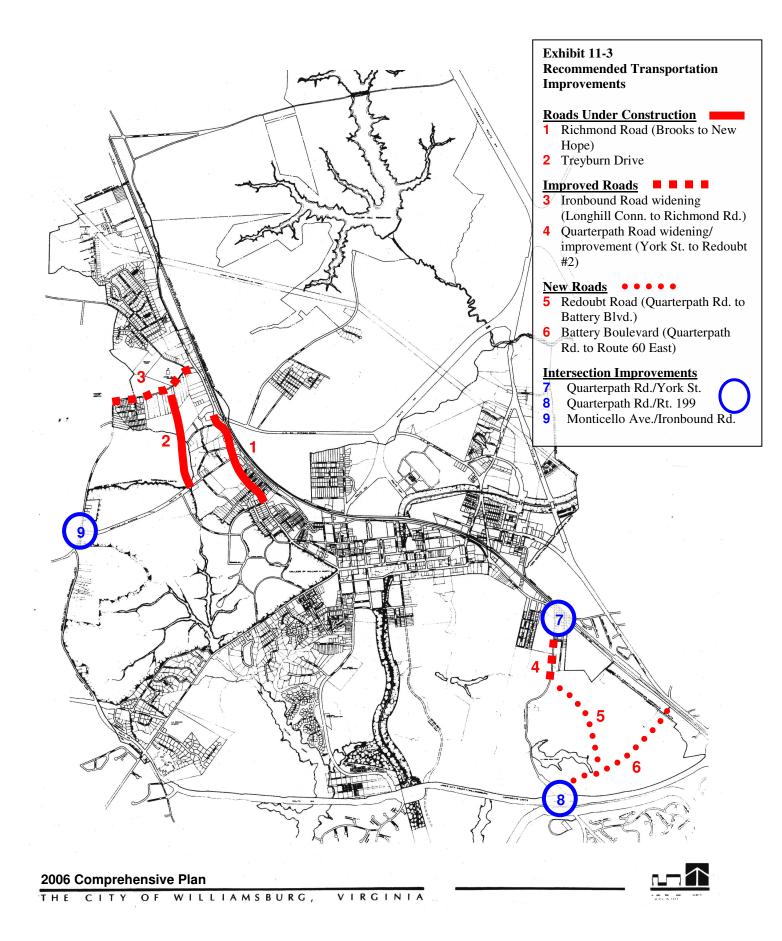
The HRPDC has also identified several segments of area roads with the potential for severe congestion in 2026. These segments are Ironbound Road between the Longhill Connector and Richmond Road (planned to be widened to four lanes), Monticello Avenue between Ironbound Road and Richmond Road, Richmond Road between Ironbound Road and Bypass Road, Richmond Road between Monticello Avenue and Brooks Street, York Street between Page Street and the eastern City limits, and the Route 199/Jamestown Road intersection. These figures reinforce the need continually monitor traffic throughout the City and to plan improvements to roadway operations such as optimization of signal timings and geometric improvements at intersections. Also important is the maintenance of an adequate transit system and improvements to pedestrian and bicycle facilities.

From a more regional perspective, the Hampton Roads Metropolitan Planning Organization (MPO)/Planning District Commission, on June 15, 2005, endorsed moving forward with a 2030 Regional Transportation Plan to include: The Third Crossing, Southeastern Parkway and Greenbelt, Midtown Tunnel and MLK Freeway Extension, Route 460, Improving I-64 on the Peninsula from Route 199 to Bland Boulevard, and Improving I-64 to Bowers Hill on the Southside. The estimated cost of these six facilities is \$8.9 billion. The Metropolitan Planning Organization (MPO) has endorsed user fee-based funding, including tolls, amounting to \$275 million annually for 30 years for this package of projects. These funding sources would be specifically for these projects and would be added to available State and Federal transportation funds. Additional revenue sources requiring General Assembly approval to fund the shortfall between the anticipated financing costs and the toll revenues will also be required.

Figure 11-1 2026 Regional Transportation Plan Project Funding Breakdown (does not include maintenance)

Source: Hampton Roads Planning District Commission





Bikeways

The City's first Bikeway System was developed in 1976 when the City was granted funding through a federal Bikeway Demonstration Grant. Included in the system were a number of improved and marked routes within the City, with the major emphasis of new construction along Route 132 connecting to a facility paralleling Bypass Road and another facility paralleling Route 132 in York County and extending through Waller Mill Park on an abandoned railroad right-of-way.

In 1992, work began on a much more extensive Regional Bikeway Plan, which would utilize portions of the bikeways constructed in 1976. The Plan, adopted by Williamsburg, James City County and York County in June, 1993, and updated in 1998, recognized that a regional approach was needed since bikeways, like highways, do not end at jurisdictional boundaries. The Regional Bikeway Plan has been incorporated into the Comprehensive Plans of all three jurisdictions, and was added to Williamsburg's Plan in 1998. Since its adoption in 1993, over 35 miles of bikeways have been constructed in the region. The most recent efforts of the three jurisdictions are to interconnect the sections of bikeways that have already been constructed, and these important links include sections of Ironbound Road, Longhill Road, Airport Road, Mooretown Road and Lightfoot Road. The City should continue to work closely with the two counties to promote and coordinate the expansion of the bikeway system.

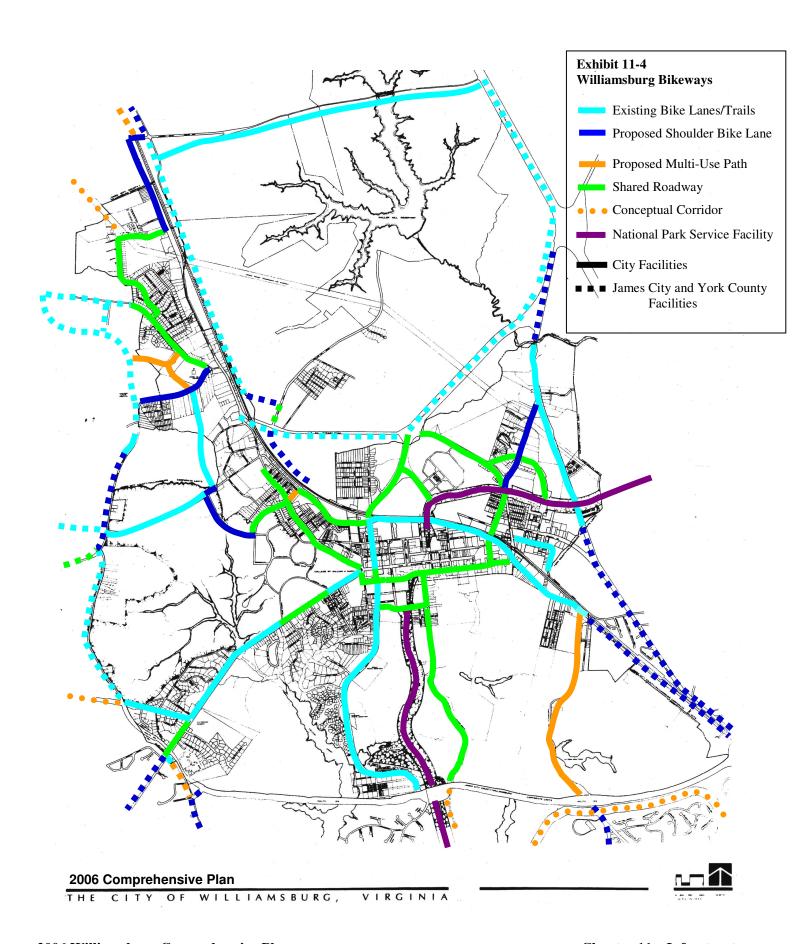
The bikeways in the Regional Bikeway Plan connect residential, commercial, recreational and community facilities such as schools, libraries and athletic fields, forming a comprehensive, inter-connected bicycle transportation network. Three types of bikeways are used by the Regional Bikeway Plan:

Shoulder Bike Lanes are constructed adjacent to traffic lanes and are generally delineated by pavement markings. These lanes are typically three to five feet wide paved shoulders and are considerably less costly than multi-use paths. To accommodate two-way traffic, these bike lanes must be constructed on each side of the road. Shoulder Bike Lanes can often be constructed in conjunction with highway construction or repaving projects. Williamsburg examples are Treyburn Drive (new construction) and Capitol Landing Road and Lafayette Street (repaving). Many bike lanes in the area have also received federal funding through the Transportation Enhancement or CMAQ process, including Monticello Avenue, John Tyler Lane, and South Henry Street.

<u>Shared Roadways</u> are travel lanes that are shared by all users of the roadway. Occasionally, the travel lanes are widened to 14 or 15 feet rather than the standard 12 feet, but often signage is the only accommodation. There are no bikeway pavement markings associated with these facilities, and the roadway is simply signed as a bicycle route. If implementation studies indicate that Shoulder Bike Lanes cannot be constructed in certain areas, Shared Roadways would be the most appropriate designation, and it is possible that in certain instances restriping could allow wider curbside travel lanes providing more room for motorists and cyclists. Typically, Shared Roadways are only designed on roadways with very light traffic and in developed areas where other modes are not feasible. Portions of Jamestown Road, Richmond Road and Francis Street fall into this category.

<u>Multi-Use Paths</u> are constructed physically separate from the highway. They may either be developed in a separate right-of-way, apart from roads and streets, or as a path within the road right-of-way, but physically separated and protected from motor vehicle traffic. These facilities are usually eight to ten feet wide and are designed to accommodate two-way bicycle traffic. The Waller Mill Rail Trail, built with federal funding through a Transportation Enhancement Grant, is an example of this type of facility, and another major Multi-Use Path is proposed along Quarterpath Road. The Virginia Capital Trail, a regional Multi-Use Path, is now under construction along Route 5.

Bikeways should also be incorporated into subdivision and site plans when these developments are located along designated bike routes, and should be considered when reviewing rezoning requests and special use permits. Provisions for bicycle parking facilities and accommodations for bicycles at signalized intersections also need to be considered as an integral part of the City's bikeway facilities.



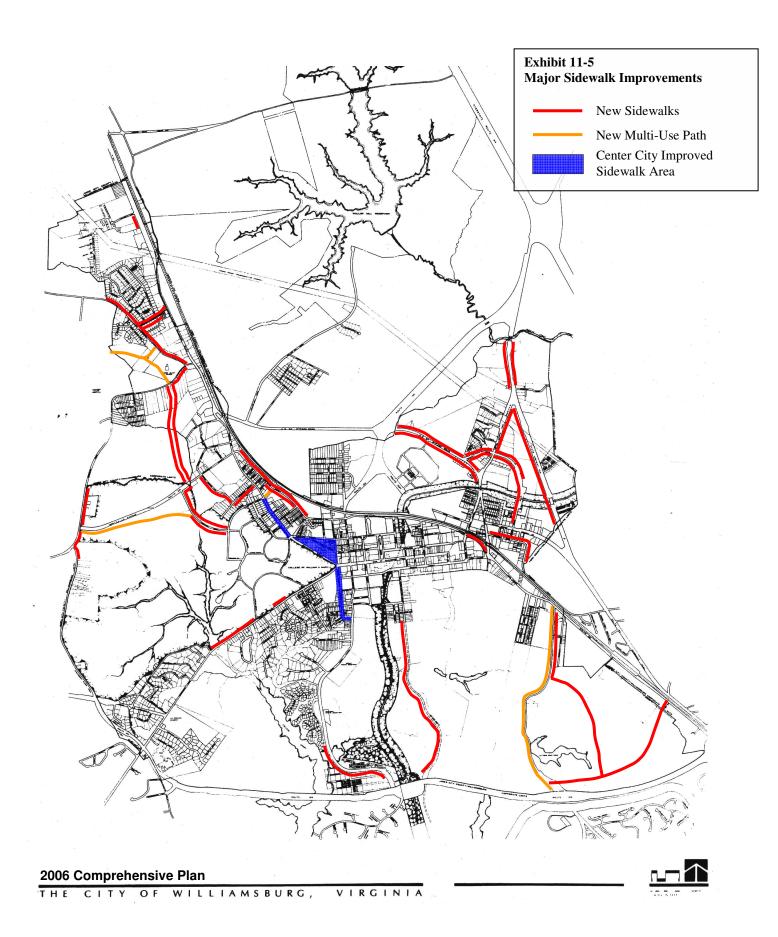
Pedestrian Facilities

The relatively compact scale of the City has allowed for the extensive use of pedestrian walkways for recreational and necessary movement between home, workplace and shopping facilities. According to the 2000 Census, 17% of workers living in Williamsburg reported that they either walked or biked to work, compared with 3.3% nationwide. While this is less than the 29.9% listed in the 1990 Census (4.3% nationally), it remains the highest figure for any locality in Hampton Roads. The increasing number of houses proposed for higher density mixed-use developments in the City should increase this number in future years, and reinforces the need to continually plan for improved pedestrian facilities. This also provides benefits through reduced air pollution, reduced traffic congestion and fuel savings.

Over the past 20 years, the City has filled in many gaps in the sidewalk system. There are still areas that need sidewalk improvements, and these include both developed and undeveloped areas. An important need is to provide a future sidewalk connection to connect the Holly Hills Carriage Homes with Jamestown Road. It is the City's responsibility to retrofit existing developed areas with sidewalks, but it should be the developer's responsibility within undeveloped areas planned for future development. The City's Subdivision Ordinance requires that sidewalks be built on both sides of public streets, and this is particularly important in conjunction with the trend toward higher density housing. In addition, sidewalks should be provided as an integral part of major street projects.

The Major Sidewalk Improvements map (Exhibit 11-5) shows major sidewalk needs for the City, but this does not include minor infill areas that may exist in individual neighborhoods (these are funded as a part of the annual Public Works Department operating budget). The most important feature of this map is providing for increased connectivity of pedestrian facilities throughout the City. These improvements will be implemented both by the City through its Capital Improvement Program, and by new developments adjoining these facilities. Major improvements include:

- Improved sidewalks between Merchants Square/City Square and the Delly area at the Richmond Road and Scotland Street. This will increase pedestrian capacity and connectivity as additional commercial uses are developed in this important area adjoining the College of William and Mary.
- New sidewalks along Lafayette Street on the south side between Harrison and Wythe Avenues, and on the north side between the Municipal Building and Chesapeake Bank, plus a multi-use path between Lafayette Street and Richmond Road at Brooks Street. This will improve connections between this residential area and the College and the Municipal Center.
- New sidewalks on the north side of Jamestown Road between Landrum Drive and Rolfe Road. This will improve connections between the Ludwell apartment complex on Rolfe Road, the proposed Business School, the new Parking Garage and the Barksdale Dormitories.
- New sidewalks on the east side of Longhill Road and along Governor Berkeley Road, as well as on adjoining sections of Ironbound Road. These improvements will improve pedestrian connections between the Skipwith Farms/Longhill Woods area and the High Street Williamsburg development, emphasizing the improved urban walkability of this section of the City.
- New sidewalks and multi-use path along Compton Drive/Monticello Avenue and Matoaka Court/Mount Vernon Avenue. These connections will improve access from the main campus of William and Mary to the new School of Education as well as the High Street and New Town areas. The majority of these improvements are on the campus of William and Mary and along VDOT maintained Monticello Avenue, and are not directly funded by the City.
- New sidewalks in the Capitol Landing Road area (Capitol Landing Road, Bypass Road, Parkway Drive and Merrimac Trail). These improvements will provide increased pedestrian access to the Colonial Williamsburg Visitor Center and safer pedestrian connections from the higher density housing along Merrimac Trail and Parkway Drive into the Center City area.
- New sidewalk and multi-use path along Quarterpath Road to serve this emerging mixed-use area in which over 1,000 homes are planned. This will serve as a pedestrian "collector" providing access to planned commercial and medical uses, as well as the proposed 21 acre Redoubt Park.



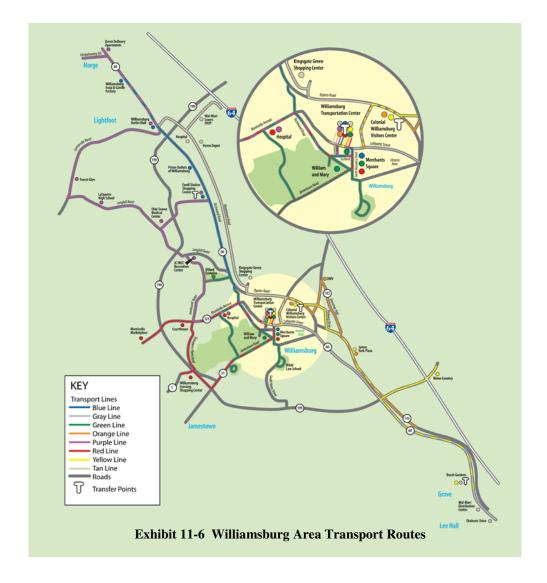
Transit

Williamsburg Area Transport (WAT) provides a comprehensive approach to pubic transportation for citizens of Williamsburg (and including the College of William and Mary and Colonial Williamsburg), James City County and the Bruton District of York County. Its major objective is "...to ensure services meet the social and business needs of our community by providing a seamless coordinated regional transit system serving residents, visitors, and students through Fixed-Routes and transportation service for the Disabled." The Williamsburg Transportation Center serves as a central transfer point for WAT buses as well as AMTRAK, Greyhound and Trailways Bus Lines, and taxi service.



With a new governing structure by a regional authority beginning on July 1, 2006, Williamsburg Area Transport will become one of the largest transit systems in the Commonwealth. This system, as envisioned in the Long Range Public Transportation Plan, will serve the three jurisdictions, Colonial Williamsburg and the

College of William and Mary. This will increase the efficiency and effectiveness of transit services in the region, and will increase the potential ridership on the system, particularly among students and visitors.

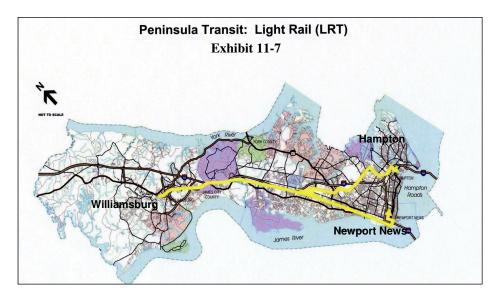


Rail Travel

A main line of the CSX Railroad runs through the City, and passenger access to the railroad is provided at the Transportation Center, located at the northern terminus of North Boundary Street and Armistead Avenue. In addition to the existing AMTRAK passenger service, the Williamsburg area could be served in the future by high speed rail, and City Council has gone on record support the addition of high speed rail on the Peninsula. High speed rail would be a great benefit to the tourist-oriented economy of Williamsburg.



In addition to the potential for high speed rail, the Transportation Center could also be the terminus of a light rail line beginning in the Newport News/Hampton area, and intermediate stations could be located near the Route 60/Quarterpath Road intersection and the Route 60 East/Route 199 intersection. Both of these stations could provided commuter rail service for residents of the mixed-use developments east of Quarterpath Road.

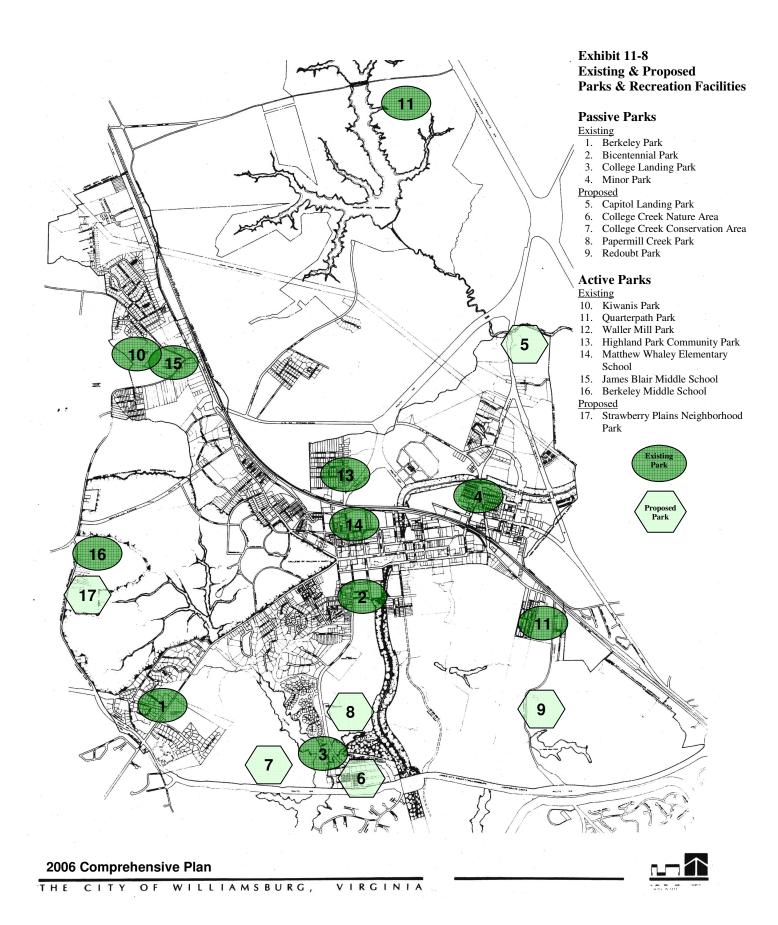


Airports

Two airports now serve the immediate Williamsburg Area—the Williamsburg-Jamestown Airport, located in James City County and the Newport News/Williamsburg International Airport, located in Newport News. The Williamsburg-Jamestown Airport, located southwest of the City, is a privately owned general aviation facility which does not offer any commercial passenger or freight services but does offer facilities for owners of private and business aircraft. The airport contains one 3200 foot runway that can handle most turbo-prop aircraft as well as light corporate jets.

Facilities at the Newport News/Williamsburg International Airport, a non-hub facility, include a primary runway of 8000 feet and a secondary runway of 6500 feet providing commercial passenger service and airline freight services. A general aviation runway of 8000 feet to run parallel with an existing runway is programmed for the future. A 100,000 square foot terminal is now in operation, and the airport master plan is presently being updated.

Additionally, the Richmond and Norfolk International Airports can be reached from Williamsburg within an hour by automobile.



PARKS AND RECREATION

The City maintains a large number of public parks and recreational facilities, and the demand for these active and passive recreational areas will increase as the City continues to grow. The physical planning aspects of the Parks and Recreation system will be discussed in the following sections, focusing first on the existing facilities and then on recommended improvements.

Existing Facilities

Williamsburg's existing facilities can be divided into two categories based on the types of activities which take place in the parks. Passive Parks are generally utilized or developed for aesthetic beauty or historic interest. Active parks are primarily developed for active recreation and include facilities such as ball fields and tennis courts and/or special facilities for activities such as fishing, cycling and boating.

Passive Parks

1. Berkeley Park

This park is located at the cul-de-sac end of Berkeley Lane, adjacent to Jamestown Road and across from Walsingham Academy. This park is presently underutilized, but has the potential to be improved as a small active park serving the surrounding neighborhoods.

2. Bicentennial Park

This four acre park is landscaped to provide sitting and strolling areas for residents and visitors, as well as users of the adjacent National Center for State Courts and the Law School. The park's importance is underscored by its location along the South Henry Street entrance corridor, one of the major routes into the Historic Area. It serves to enhance the visual entrance statement provided to visitors and residents by preserving valuable greenspace along this important entranceway. It the future its importance will be heightened when the Wallace Museum is expanded with its main entrance facing the park.

3. College Landing Park

This 2 acre park is built on the site of one of Williamsburg's two colonial ports. The historic two-acre site has been developed to provide for aesthetic and recreational opportunities. A scenic overlook, a marsh walk, a boat ramp for shallow draft boats, a picnic area and parking facilities have been incorporated into the park.

4. Minor Park

This .17 acre facility, purchased by the City in 1987, has been improved and helps to beautify the Capitol Landing Road/Page Street area.

Active Parks

1. Kiwanis Park

This twenty-seven acre facility on Longhill Road, adjacent to James Blair Middle School, currently has twelve acres which provide a variety of recreational facilities including seven lighted all-weather tennis courts and two lighted ball fields for the Recreation Department's youth coach pitch, slow pitch and fast pitch softball programs. Numerous pieces of multi-station playground apparatus are provided, as well as a shelter and a full size basketball court. Fifteen acres of undeveloped woods adjoin the facility.



2. Quarterpath Park

This twenty-three acre facility located on Quarterpath Road near Route 60 East includes three lighted softball fields: a 25-meter. 6lane, z-shaped outdoor swimming pool; three all-weather playground tennis courts: equipment; and a picnic shelter accommodating approximately 75 people. It is also the site of the Quarterpath Recreation Center, a 36,144 square foot facility that was



renovated in 2002. The Recreation Center houses offices for the Williamsburg Parks and Recreation Department, an 18,000 sq. ft. double gymnasium, a 1,700 sq. ft. dance/aerobics room, two classrooms and a 1,900 sq. ft. multipurpose room. Various instructional classes, athletic programs for youth and adults, sports camps, and special events are held throughout the year at this facility.

3. Highland Park Community Park

This 2-acre neighborhood park is located on North Henry Street in the Highland Park Community. This facility has playground equipment, a half-court basketball court, a picnic shelter with grills and a paved walking trail.

4. Waller Mill Park

Located on Airport Road between I-64 and Richmond Road, Waller Mill Park's 2,705 acres are situated around the City's Waller Mill Reservoir. The park was opened to the public in July 1972. The 386-acre lake is open for fishing, boating, pedal boating, canoeing and kayaking with a tunnel connecting the upper and lower sections of the lake. Numerous picnic tables, four shelters accommodating from 25 to 150 people, play fields, and playground equipment are nestled among the trees providing a scenic picnic area.



There are over 6.5 miles of hiking trails throughout the park, plus the two-mile long Waller Mill Rail Trail - a paved multi-use facility that provides walking and biking opportunities, connecting to bike lanes on Mooretown Road and East Rochambeau Road.

Hiking trails provide an interesting, picturesque walk with water and wooded views. A two-mile paved multi-use trail bike trail offers scenic hiking and biking opportunities, and connects to bike lanes on Mooretown Road and East Rochambeau Road. A short hike from the park along this trail will bring you to the Lookout Tower, which offers a panoramic view of the water and woodlands.

6. Matthew Whaley Elementary School

The school grounds contain a softball field and numerous pieces of multi-station playground equipment.

7. James Blair Middle School

This facility provides a regulation baseball field and two youth baseball areas. It also offers Cooley Field, which hosts Jamestown and Lafayette High School football and soccer activities.

8. Berkeley Middle School

The school grounds contain a baseball and a softball field, as well as the capability of having a football field superimposed on the baseball field. The playfield at this school provides facilities for after-school

and summer recreational programs. The indoor facilities also provide opportunities for year-round program scheduling.

Other Facilities

In addition to these municipal facilities, the Williamsburg area has a number of private and nearby public areas which enhance the community's available resources. These include the beautiful green areas and facilities of the College of William and Mary and Colonial Williamsburg, and nearby regional facilities including the York River State Park, Chippokes State Park and the Colonial National Historic Park (Yorktown Battlefield, Jamestown Island and the Colonial Parkway).

Planned Improvements

Numerous improvements are planned for both the City's active and passive parks.

Passive Parks

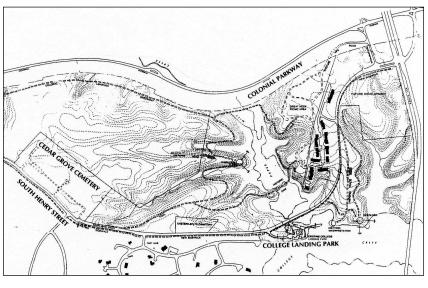
1. Capitol Landing Park

A portion of the Capitol Landing site on Queens Creek should be acquired to preserve the historic site of one of the City's two colonial ports, and to provide an additional passive recreation opportunity in the northeastern section of the City. The scope of the park should be similar to that of College Landing Park, the site of the City's other colonial port. Potential also exists for the site to be interpreted as a colonial port, and this idea should be explored with the Colonial Williamsburg Foundation.

2. College Creek Parks

The four parks listed below have the potential to form a unique system of over 217 acres of linked open spaces, creating a important open space preserve in the southern portion of the City.

College Landing Park. This existing two acre park is built on the site of one of Williamsburg's two colonial ports. The historic two-acre site has been developed to provide for aesthetic and recreational opportunities. A scenic overlook, a marsh walk, a boat ramp, a picnic parking and area facilities have been incorporated into the park.



Papermill Creek Park. This park will have at its core 37 acres on the north side of Papermill Creek that the City acquired from the College of William and Mary. Trails will be developed and marsh overlooks will be built, and the park will have a definite ecological orientation and will take advantage of the wetlands of Papermill Creek. Access to this park will be available from the south at College Landing Park and from the north at South Henry Street opposite the entrance to the Port Anne subdivision. The northern section of the park is topographically suited for the location of a facility such as an art museum and gallery or a nature center, and can also serve as the "trail head" for the park. It may also be possible to incorporate the former Great Neck Picnic Area into the park, which will require an agreement for its use from the National Park Service. This could allow a pedestrian connection to the Center City area from The Oaks subdivision, which currently has no formal pedestrian link to the rest of the City.

- College Creek Nature Area. This 45 acre undeveloped area, which is bordered by South Henry Street, Route 199 and College Creek, should be acquired. The northern part of the site should be connected to the College Landing Park marsh walk, and the remainder of the area should be preserved as open space to maintain South Henry Street as a scenic entry corridor.
- College Creek Conservation Area. This 105 acre conservation area, acquired by the City in 1996, should remain undeveloped and preserved in its natural wooded state, to serve as a viewshed and as a place of quiet enjoyment. Public access should be maintained from the adjacent public streets in the Holly Hills subdivision, but no off-street parking should be constructed. It may be possible to provide a pedestrian connection to this area from College Landing Park by constructing a pedestrian bridge from College Landing Park across College Creek.

3. Redoubt Park

Redoubts and along Quarterpath Road formed part of Confederate General J. Magruder's Third Peninsula Line. The development of Redoubt Park make these earthworks accessible to the public while simultaneously providing interpretation about the Battle of Williamsburg and other historical features found in this parcel, and is a joint effort between the City and the Virginia War Museum Foundation. The park project is also part of an overall effort to



preserve and interpret 1862 Peninsula Campaign sites on the lower Peninsula. Riverside Health Care has proffered the dedication of 21.4 acres for the park as a part of their Quarterpath at Williamsburg project, as well as \$150,000 to construct improvements to the park. Care must be taken in the design of future improvements to Quarterpath Road to minimize encroachment into the historic setting of Redoubt Park.

Active Parks

1. Kiwanis Park

A master plan has been developed upgrade this facility for utilization in the Parks and Recreation Department's Youth Softball and Girls' Fast Pitch Softball programs. Improvements proposed include development of a third lighted ball field. relocation and improvement of the two existing lighted ball fields, construction of a new concessions and restroom building, expansion and upgrading of parking facilities, and the development of biking and walking trails.



2. Strawberry Plains Park

The Strawberry Plains Subdivision, developed by the Williamsburg Redevelopment and Housing Authority, created 57 new single family lots. The centerpiece of the development is a 0.7 acre city park. The Parks and Recreation Department worked with the residents to develop a plan that will serve the neighborhood's needs, and these improvements should be completed in FY07.

Shoreline Access

The City has reviewed the Hampton Roads Shoreline Erosion and Public Access Study as part of the development of the Comprehensive Plan. The only access area identified in the study is along Queens Creek, and a portion of Queens Creek is planned to be incorporated into the Capitol Landing Passive Park. Other shoreline access opportunities in the City include the existing College Landing and Waller Mill Parks, the proposed Papermill Creek and College Creek Parks, as well as the College Creek Nature Area. All of these parks are discussed in the "Passive" and "Active Park" sections above. Even when not accessible through park land, the shorelines in the City are protected through the Chesapeake Bay Preservation regulations in the City's Zoning Ordinance.

Programmatic Improvements Related to Physical Improvements

The 1998 Comprehensive Plan listed programmatic need for parks and recreation that were identified by Williamsburg Parks and Recreation/Planning for the Future: A Needs Assessment, prepared by the Thomas Jefferson Program in Public Policy at the College of William and Mary. Many of the recommendations of the assessment are still valid, and are listed below:

- Maintain the allotted Capital Improvement budget for Parks and Recreation
- Continue collaborative planning with James City and York County Divisions of Parks and Recreation
- Provide additional walking and bike paths
- Addition of new playgrounds and playground equipment in existing parks
- Increase access to parks and recreation through improved public transportation
- Increase opportunities for unstructured activities

Taking both the physical and programmatic needs into consideration, the challenge for the future is one of continuing improvement to programs and facilities, as opposed to a major expansion of the City's active park and recreation facilities. The Parks and Recreation Department should cap the growth of its athletic offerings and classes and focus on the quality, effectiveness and marketing of the services it offers. New programs and facilities should be targeted in two areas: (1) the needs of special groups of City residents, notably seniors and teens and (2) ensuring adequate access to open spaces, walking paths and bikeways. Other than these two focus areas, the predominant share of program and facility growth should be shouldered by James City and York Counties, two of the fastest growing counties in Virginia.

COMMUNITY SERVICES FACILITIES

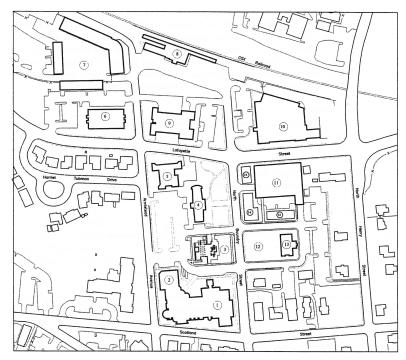
The City of Williamsburg has well developed facilities to support basic community service needs. These include City owned facilities such as the Municipal Building, Fire and Police Stations, Library, Community Building, Transportation Center, City Shop and Cedar Grove Cemetery; jointly operated facilities such as the Williamsburg/James City County Courthouse, Regional Jail and Olde Towne Medical Center; and facilities that are operated by other levels of government or are operated by other organizations, such as the Williamsburg Community Hospital and the Post Office.

The Municipal Center

Development of the Municipal Center. The City's Municipal Center includes the City's major governmental functions and public buildings, and covers a 25-acre area bounded by the CSX Railroad to the north, Henry Street to the east, Scotland Street to the south and Armistead Avenue to the west (Exhibit 11-9). This area has long been the focus of planning efforts by the City, and was first addressed in the 1953 Comprehensive Plan. By the time the 1981 Comprehensive Plan was adopted, most of the present Municipal Center buildings were in place: the Municipal Building (1968 - now the Stryker Building), Library (1973), Police Station (1978) and Fire Station (1978). Another group of buildings were completed prior to the adoption of the 1989 Comprehensive Plan: Arts Center (1982), City Shop (1985), Municipal Building on Lafayette Street (1988), and the remodeling of the Stryker Building for the present City Council Chamber (1989).

<u>First Expansion.</u> A major planning effort to upgrade the Municipal Center began with the completion of a master plan for City Square in 1998, which was implemented in 1998 and 1999. Central to this plan is City Square, a large open space that serves as the area's centerpiece and defining element: a tree-lined green on the east side of Boundary Street leading to the Community Building, and a plaza adjoining the

Exhibit 11-9 Williamsburg Municipal Center



- 1. Williamsburg Library
- 2. Arts Center
- 3. Library Plaza
- 4. Stryker Building
- 5. Police Station
- 6. Municipal Building
- 7. City Shop

- 8. Transportation Center
- 9. Fire Station
- 10. Post Office
- 11. Parking Terrace
- 12. City Square
- 13. Community Building
- 14. Future Building Sites

Library entrance featuring a Trellis incorporating a reconstruction of the

north wall of the old Municipal Building, a water wall, a granite fountain, and an inlay of the Frenchman's Map. This open space unifies the varied architectural styles of the existing buildings introducing new tree lines, seat walls, pedestrian pathways and other landscape Surrounding the City treatments. Square, in addition to the Library and Stryker Building, is the 153space two-level Parking Terrace and the Community Building, which provides 2,525 square feet of community meeting space in two adjoining meeting rooms. Sites for three commercial and/or office buildings with approximately 18,000 square feet of floor area were provided on the west and south sides of the Parking Terrace, reducing its visual impact and providing a building edge to the north side of City Square – two of these buildings have been completed.

The Municipal Center in 2006. The major components of the present Municipal Center are:

<u>The Municipal Building.</u> This 24,000 square foot building houses the following offices: City Manager, Planning Department, Building Inspections, Public Works and Public Utilities Department, Finance Department, Assessor's Office, Social Services Department, Treasurer and Commissioner of the Revenue. A conference room on the third floor accommodates public meetings and work sessions for City Council, Planning Commission, Architectural Review Board and Board of Zoning Appeals.

<u>Stryker Building.</u> This facility includes a 140 seat Council Chamber, the Voter Registrar's Office and the Williamsburg Redevelopment and Housing Authority, the Fire Department Administrative Offices and the Emergency Operations Center.

Williamsburg Library. The Library was built in 1973 as a part of the original Municipal Center master plan. In 1977, Williamsburg and James City County established, by contract, a Regional Library. York County was invited to participate but declined. However, they did agree to enter into a financial arrangement in which the library serves the County's Bruton District. The City expanded the Library in 1982, and a multi-purpose auditorium, meeting rooms and an art gallery were added. In



1997, the James City County Library in Norge was added as a second Williamsburg Regional Library location. A major expansion of the Williamsburg Library was completed in 1998 increasing its size to 30,000 square feet and making it the most prominent public building in the Municipal Center. In FY 2005, through both library locations and a bookmobile the Williamsburg Regional Library circulated 1,222,935 items to 60,302 registered borrowers. The Libraries house a collection of 361,584 items in a variety of formats and many information databases are available both in-house and at home to those with Internet access.

Community Building. The Community Building, completed in 1999, is located at the eastern terminus of City Square, and was designed to provide meeting facilities that complement those available at the Williamsburg Library across North Boundary Street. The building contains two adjoining meeting rooms, one large and one small, which can be used together or separately. A small catering kitchen is



provided to serve the meeting rooms. An outdoor terrace at the front of the building offers a westerly vista of City Square and the Library Plaza, and concerts can be staged from the steps of the terrace. During 2005, the Community Building hosted 54 City functions and 150 private events.

<u>Performing Arts.</u> The City's major performing arts space is located in the Arts Center in the Williamsburg Library, which contains a 268-seat auditorium. This facility hosts a wide range of performances throughout the year and also serves as an important community meeting facility. Other local venues are Phi Beta Kappa Hall at the College of William and Mary, the soon to be renovated Lake Matoaka Amphitheater, and the newly opened Ferguson Center for the Arts at Christopher Newport University in Newport News.

<u>Police Station.</u> The Police Station was completed in 1978 and expanded in 1997, and is located on the south side of Lafayette Street between North Boundary Street and Armistead Avenue. The 11,000 square foot building provides for a training room and the necessary audio-visual equipment, a line-up room which allows separation and privacy for crime victims viewing suspects, a forensics lab for analyzing evidence and photographic work and a closed circuit television and office space for administrative staff. The building also contains an E-911 dispatch center which provides central dispatching services for all emergency public safety needs in the City.

Fire Station. The City is served by one fire station located on the north side of Lafayette Street between North Boundary Street and Armistead Avenue. Additional service is provided by several James City County and York County fire stations through mutual aid agreements. The City fire station, built in 1978, is



centrally located and contains 18,000 square feet of floor area, a backup Dispatch Center with the Fire Department frequency on a repeater, a hose drying tower, sleeping quarters, and other support facilities. Fire Administration is located on the second floor of the Stryker Building at 412 North Boundary Street, across from the Fire Station on Lafayette Street. The City Emergency Operations Center is also located in the Stryker Building, and includes extensive communication equipment, fold-up work stations, a backup generator and windows able to handle hurricane force winds. When not in use during an emergency, the space is utilized as a conference room, training room and plans review area.

The demand for fire and emergency services in the City will continue to increase in future year, highlighted by the following:

- Development in James City County along Route 199, Richmond and Longhill Roads and
 in the area surrounding the new James City-Williamsburg Courthouse, which will
 increase the work load for the James City County Fire Department and thereby affect
 mutual aid ability with Williamsburg.
- The continued development of Bypass Road in York County.
- The location of additional limited care facilities and nursing homes within the City, which generate a greater than normal demand for emergency services.
- The increased need for services in developing areas of the City, including High Street Williamsburg on Richmond Road and Quarterpath at Williamsburg along Quarterpath Road and Route 199.

While the City's present Boundary Street Fire Station is well located for response to the core of the city and the Historic Area, response times to the Williamsburg-James City Courthouse and points north and west are compromised by increased traffic congestion (especially along Lafayette Street) and a very shallow depth of operation. To serve this additional need, a one-acre parcel for a second Fire Station has been reserved on Ironbound Road near the intersections of Treyburn Drive and Longhill Road. This will provide a much greater depth of operation, as well as a much needed decrease in response times to this increasingly busy area of the City.

<u>City Shop.</u> This facility was established in 1985 on Armistead Avenue north of Lafayette Street and the Municipal Building and west of the Transportation Center. The site contains a 16,000 square foot shop building and two covered storage sheds, as well as a 1,000,000 gallon water storage tank. It houses the streets, water and sewer, landscape and vehicle maintenance division of the Public Works Utilities Department, and serves as the fuel dispensing station for the entire fleet of City vehicles and equipment.

<u>Transportation Center.</u> The Transportation Center is located at the northern terminus of North Boundary Street and Armistead Avenue, and is the only center in the state that is a full service transportation center. This 5400 square foot brick building was built in 1935 as a part of the restoration of Colonial Williamsburg. In 2000, it was purchased by the City from the Colonial Williamsburg Foundation and was renovated and restored. The Transportation Center functions as a central



terminal for Amtrak, Greyhound and Trailways Bus Lines, and Williamsburg Area Transport bus service. Long-term parking, automobile rental and taxi services are also provided. It is conveniently located to serve both Colonial Williamsburg and the College of William and Mary. For future needs, the Transportation Center is a strategically located part of the City's evolving transportation network, and will be a major node in the advanced transportation network planned for the Hampton Roads Region.

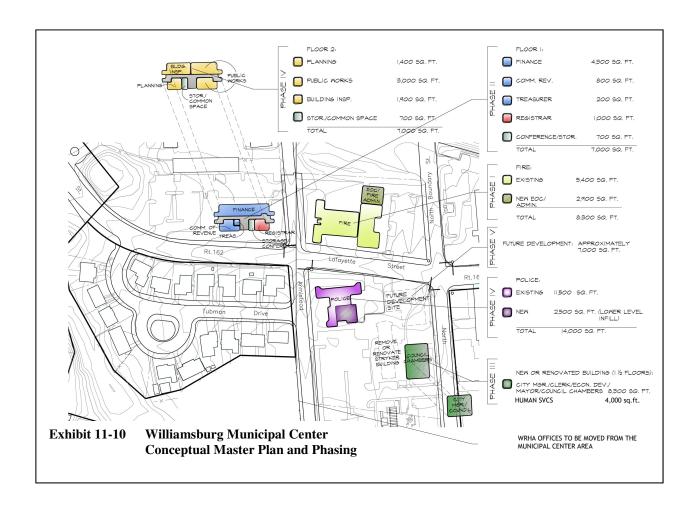
<u>Post Office</u>. The Post Office moved to its present location on the north side of Lafayette Street between North Henry and North Boundary Streets in 1989. This site was selected to maintain convenience to downtown residents and businesses, and to relieve Merchants Square of undesirable truck traffic. However, subsequent experience has shown that this downtown location is not suitable for the Post Office processing and transport center because of the volume of employee parking and mail delivery traffic that it generates. To supplement this facility, a second Post Office was built in James City County on Monticello Avenue west of the City in November 2003.

Planned Expansion of the Municipal Center.

Preliminary planning has been completed for the third major expansion of the Municipal Center. The first expansion was in 1968-82 when the following buildings were constructed: Stryker Building (1968), Library (1973), Fire Station (1978), Police Station (1978), and Library Auditorium (1982). The second expansion began with the completion of the master planning for City Square in 1999, and includes the construction of the following: Library Expansion (1999), Parking Terrace (1999), Community Building (1999), City Square/Library Plaza (1999), and Transportation Center Renovation (2002). This planned expansion follows the completion of a comprehensive space needs survey for City facilities. The major needs identified are: increased administrative office space for City departments, space for a new Emergency Operations Center, a new or renovated City Council Chamber and City Hall (Stryker Building).

The Williamsburg Municipal Center Conceptual Master Plan (Exhibit 11-10) has been prepared to illustrate the needed improvements for the Municipal Center area. This plan will obviously evolve as more detailed plans for the individual buildings are developed. Specific improvements include:

- A new Emergency Operation Center and Fire Administration offices as an addition to the Boundary Street Fire Station, replacing the existing EOC and offices on the second floor of the Stryker Building. Design and construction is planned for FY07-08).
- A new or renovated City Council Chamber and City Hall (Stryker Building). Design work is planned for FY08, with construction to be scheduled when the design is complete. A restructuring of City offices is planned following this construction
- A site for future development is reserved on the southwest corner of North Boundary Street and Lafayette Street. While no specific use is proposed, the site could accommodate a building of approximately 7,000 square feet.



Community Services Facilities Outside The Municipal Center

Although the majority of the City's facilities are located in the Municipal Center, several facilities are located elsewhere in order to best serve the residents of Williamsburg and adjoining jurisdictions.

Cedar Grove Cemetery. The City owned and operated Cedar Grove Cemetery is located on South Henry Street south of Mimosa Drive. The original four acres of the cemetery were deeded to the City is 1859 and an additional 12 acres have been added outside of the original brick wall that marked the boundary of the 1859 cemetery. Approximately 250 Confederate soldiers were buried in a common grave in the northeast section of the cemetery following the Battle of Williamsburg in May, 1862. In 1929, 13 cedar trees were planted by the Daughters of the American Revolution, one for each of the 13 original colonies. Burial in the cemetery is limited to City residents and eligible City employees. There are a total of 11,984 burial spaces, and 9.396 have been sold. The City has established a cremains area within the cemetery. The average number of annual burials is 70. It is estimated that the cemetery will be sold out in the mid 2020s. The City should initiate discussions with the College of William and Mary in the next 10 years to acquire adjacent undeveloped College property to the east, which could result in an expansion area of between nine and 35 acres.

<u>Courthouse</u>. The Williamsburg/James City County Courthouse moved to its present location on a 10-acre site Monticello Avenue near the corner of Ironbound Road in November 1999, and the site was subsequently annexed into the City. The 70,000 square foot Courthouse houses the Williamsburg-James City County Circuit and General District Courtrooms and allied offices.

Regional Jail. The Williamsburg, Poquoson, James City County and York County formed the Virginia Peninsula Regional Jail Authority in 1995. A 290-bed facility was constructed on Route 143 in lower James City County. As a part of the formation of the Regional Jail Authority, the Williamsburg and James City County Sheriff's Departments were consolidated and provide courtroom security and the serving of civil papers for both jurisdictions.

Juvenile Detention Center. The Merrimac Center is a secure detention facility that houses 48 juveniles. Adjacent to the regional jail, it serves Williamsburg and 18 other localities that comprise the Middle Peninsula Juvenile Detention Commission. The Center provides a full range of custodial services to juveniles who are placed there while awaiting a hearing after having been charged with an offense. Pre-dispositional placement is temporary: the typical stay is between 30 and 60 days. Because of State funding mandates, 10% of the space at the Center is reserved for post-dispositional placements (juveniles who have been found guilty of an offense and area committed to the Center to serve out their sentence or to await transfer to an adult facility when they reach the age of 18 years). The Center has a full time administrator and staff, including teachers from the Williamsburg-James City County school system. The Center also provides emergency care of juveniles who need to be removed from their homes for their protection.

Community Medical Facilities

Existing Facilities

Sentara Williamsburg Medical Center. The Sentara Williamsburg Medical Center, located on 120 acres in York County on Mooretown Road near Route 199, was established as Williamsburg Community Hospital in Williamsburg on Mt. Vernon Avenue in 1961. In 1996, the hospital affiliated with the Sentara Health System, a regional provider of tertiary and other hospital services, insurance products, Home Health, mental health and physician practices. The hospital offers a full complement of medical services for the greater Williamsburg area. The inpatient facility is licensed for 139 patients, and the hospital is equipped with five operating rooms providing services on an inpatient and outpatient basis.

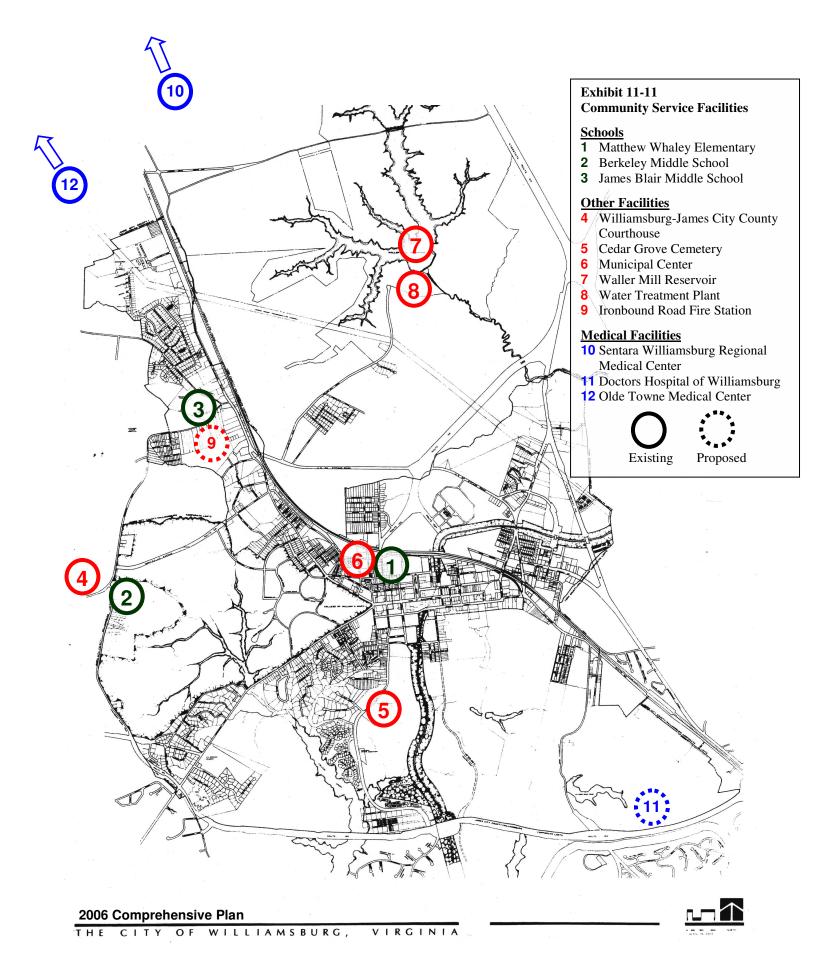
Future Facilities

Doctors Hospital of Williamsburg. Riverside Health System is developing the mixed-use Quarterpath at Williamsburg in the southeast quadrant of the City, which will include residential, commercial, retail and health care uses. The health care component will accommodate a skilled cared nursing facility, medical offices and Doctor's Hospital of Williamsburg, a general hospital with emergency, diagnostic and surgical facilities.



Olde Towne Medical Center. The Olde Towne Medical Center, which is housed at the James City County Human Services Center on Olde Towne Road, offers services from both paid and volunteer doctors, nurse practitioners, and dentists. Olde Towne provides care to more than 1,100 patients each month through its medical clinic, dental clinic, and family health care van. Services include physical examinations for children and adults, immunizations, medical care for chronic diseases, medications support, gynecological care, pre-natal care, HIV/AIDS screening and counseling, education and family support, information about and referral to community resources and medical specialists, and case management

The majority of the patients come to the clinic for chronic disease management and physical check ups: 25% of the patients come to the pre-natal clinic and 6% to the dental clinic; 22.5% are children under 18 years of age and 10% are adults over 65; and 20% of the Center's patients are Williamsburg residents. Volunteer doctors, nurses, dentists, students and local citizens contribute more than 600 hours a month to provide medical, dental, nursing and clerical support to the Olde Towne Medical Center.



The clinic is operated by the Williamsburg Area Medical Assistance Corporation. A total of 65% of Olde Towne's patients have no insurance and pay for their services on a sliding fee based on family income and size. Sources of Olde Towne's funding include 26% from local jurisdictions; 32 % from grants; 21% from patient payments; 6% from Sentara Williamsburg Community Hospital and 15% from contributions and fund raising. The City of Williamsburg's contribution in FY06 was \$84,000.

EDUCATION

Public Schools

Williamsburg and James City County jointly operate the Williamsburg-James City County Public Schools. This joint school system was formed in 1953, and is headed by a Superintendent, who is responsible to a seven member school board comprised of two City residents and five County residents. City School Board members are appointed by City Council while County School Board members are elected. This joint school system has served the City for the past 53 years.



Matthew Whaley Elementary School

The stated mission of the Williamsburg-James City County School Division is "...to provid[e] an excellent education, in partnership with families and community, so that each and every student is prepared for lifelong learning, independent thinking, and responsible citizenship. Their Vision Statement recognizes that:

We will be a national leader that provides outstanding programs and opportunities, continually developing the potential and meeting the unique needs of each and every student. We will prepare productive members of society in a safe, challenging, and nurturing environment through collaboration with families and our community.

The contract for the operation of the joint school system was last renegotiated with James City County in 2001-2002, and will be renegotiated in 2006-07. The City pays local operating and capital costs in proportion to its student population times an add-on factor that varies by year.

The Division operates 12 schools: seven elementary schools, (Clara Byrd Baker, Rawls Byrd, James River, D.J. Montague, Norge, Stonehouse and Matthew Whaley); three middle schools (Berkeley, James Blair, and Toano); and two high schools (Jamestown and Lafayette). A third high school is under construction, and planning is underway for the eighth elementary school. Three schools are located in the City:

Matthew Whaley Elementary School. Built in 1930, Matthew Whaley Elementary School is located at 301 Scotland Street and serves most of the City's elementary students. The school was renovated in 1997. Matthew Whaley has a design capacity of 513 students.

Berkeley Middle School. Berkeley Middle School, built in 1965, is located on twenty-three acres at the intersection of Ironbound Road and Strawberry Plains Road. The school was renovated and expanded in 1998-99, and has a design capacity of 725 students.

James Blair Middle School. This school, built in 1955, is located on twelve acres at the corner of Ironbound Road and Longhill Road. The building was completely renovated in 1992, and has a design capacity of 625 students.

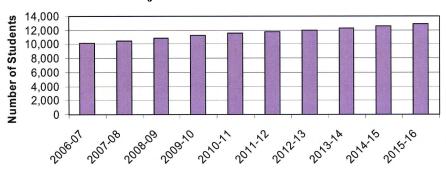
Although City students attend every school in the system, the majority of City students attend three schools: Matthew Whaley Elementary School on Scotland Street and Berkeley Middle School on Strawberry Plains Road, both of which are located in the City; and Jamestown High School on John Tyler Highway, located in James City County. Table 11-3 below lists the 2005-06 enrollment in the various schools within the Williamsburg-James City County Public School System:

TABLE 11-2 2005-2006 School Enrollment Summary

	Williamsburg		James City		
School	Enrollment		Enrollment		Total
Elementary					
Clara Byrd Baker	42	5.6%	710	94.4%	752
Rawls Byrd	20	3.8%	500	96.2%	520
James River	7	1.5%	462	98.5%	469
D.J. Montague	10	1.3%	769	98.7%	779
Norge	12	1.8%	645	98.2%	657
Stonehouse	0	0.0%	605	100.0%	605
Matthew Whaley	294	53.0%	261	47.0%	555
Elementary Total	385	8.9%	3,952	91.1%	4,337
Middle					
Berkeley	153	17.5%	732	82.5%	876
Blair	30	4.8%	598	95.2%	628
Toano	8	1.0%	823	99.0%	831
Middle Total	191	8.2%	2,144	91.8%	2,335
<u>High</u>					
Jamestown	177	11.6%	1,347	88.4%	1,524
Lafayette	36	2.2%	1,588	97.8%	1,624
High Total	213	6.8%	2,935	93.2%	3,148
Total Division	789	8.0%	9,031	92.0%	9,820

Future growth in the public school system will be primarily to accommodate population growth in James City County, and no new schools are proposed to be located within the City. An enrollment projection update was prepared in November 2005 for the Williamsburg-James City County Public Schools by DeJONG consultants. The update contains low, moderate and high enrollment projections from 2006-07 to 2015-16. The 2015-16 enrollment projections are 11,462 low (+16.7%), 12,856 moderate (+30.9%), and 13,922 high (+41.2%). Figure 11-3 below illustrates to moderate enrollment projection.

Figure 11-3
Williamsburg-James City County Public Schools
Projected Enrollment - Moderate



Private Schools

Williamsburg has one private school, Walsingham Academy. Walsingham is a parochial school run by the Catholic Sisters of Mercy. Located on Jamestown Road, it operates a lower division consisting of a pre-school and grades K-7. There are 33 children in the pre-school program and 392 students in the lower grades. The upper division serves pupils in grades 8-12; there are 310 students in this division.

Thomas Nelson Community College

Thomas Nelson Community College (TNCC) is a two-year institution of higher education established as a part of a statewide system of community colleges. It primarily serves the residents of the cities of Hampton, Newport News, Poquoson, and Williamsburg, and the counties of James City and York. Since 1970, Thomas Nelson has graduated more than 13,000 individuals and has provided credit and non-credit instruction to many more residents of the Peninsula and nearby communities. TNCC provides access to comprehensive instructional programs which extend through the associate's degree level. Courses of study provide individuals with the knowledge and skills required for employment, to continue their education at four-year colleges and universities, and to become generally educated citizens able to function in today's complex world. TNCC is also responsive to the educational and skills needs of area businesses, industries and government agencies. In the 1990's, TNCC expanded its emphasis on work force development with additional programs to serve the needs of service area employers, and in 2001 the college moved from an interim work force center into the Peninsula Workforce Development Center.

To support the population growth on the Peninsula, the college operates sites in the Williamsburg area providing both credit and non-credit programs. In 2003, the college received designation for its second campus in the Williamsburg area because of the extensive enrollment growth in the area. The college will locate adjacent to the third high school now under construction on Centerville Road near its intersection with Richmond Road.

TNCC is financed primarily by state funds, supplemented by contributions from the participating localities and the federal government. The annual local contribution is based on the college's capital improvements program. Williamsburg's share for FY06 was \$50,241.

College of William and Mary

The College of William and Mary is discussed in Chapter 9, Institutions.

COMMUNICATION

Communication services are an increasingly important part of the public infrastructure, and are an important means for the City government to talk to its citizens and businesses.

- Cable television service is provided within the City by Cox Communications through a franchise agreement. Channel 48 provides notices, televises City Council and Planning Commission meetings, and features presentations on local government issues.
- The City's web site, <u>www.williamsburgva.gov</u>, provides City information, regional links, email links to City Council and City staff, and direct "e-government" services.
- The Williamsburg WiFi Zone, a free wireless internet services is available for visitors, residents and students in the Merchants Square area.